Tuesday, 16/01/2007 1:48:22 PM

Linda Lacelle User:

Process Sheet

Customer Job Number : CU-DAR001 Dart Helicopters Services

: 30135

Estimate Number

: 10926

P.O. Number This Issue

: NIA

: 16/01/2007

S.O. No. : N/A

Prsht Rev. : NC

: 08/01/2007 First Issue **Previous Run**

Type

Re-format EC

: 25257

: SMALL /MED FAB

Checked & Approved By

Comment

Written By

: Est.

B 00.01.12

Drawing Name

: D2003111

Part Number **Drawing Number**

: UNDER REVIEW

: TUBE ASSEMBLY

Project Number

: B **Drawing Revision**

Material **Due Date** :NIA : 05/02/2007

: N/A

Qty:

5 Um:

Each

Additional Product

Job Number:



Seq. #:

Machine Or Operation:

Description:

1.0 DC

DOCUMENT CONTROL



Comment: DOCUMENT CONTROL

Photocopy bluefile & type labels per PPP D2003-111

2.0

M304TR0500W035

304 RD Tube .500 x .035W



Comment: Qty.:

0.4047 f(s)/Unit Total:

Material:1/2"Æ x 0.035" wall 6061-T6 tubing

Batch:

2.1

M6061T6T0500W035

6061-T6 Tube .500 x.035W



Comment: Qty.:

6061-T6 Tube .500 x.035W

0.4047 f(s)/Unit Total:

2.0235 f(s)

3.0

SMALL FAB 1



Comment: SMALL & MEDIUM FAB RESOURCE 1

Form tube as per template D2003111



4.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP



Dâte: Tuesday, 16/01/2007 1:48:22 PM Úser: Linda Lacelle **Process Sheet** Drawing Name: TUBE ASSEMBLY Customer: CU-DAR001 Dart Helicopters Services Part Number: D2003111 Job Number: 30135 Job Number: Seq. #: **Description:** Machine Or Operation: Firesleeve-crkl .375IDia 5.0 M26506 Comment: Qty.: 0.4156 f(s)/Unit Total: 2.0780 f(s) Material: M2650-6 Heat sleeve Batch: 103932 MS208198D Sleeve 6.0 Comment: Qty.: 2.0000 Each(s)/Unit Total: 10.0000 Each(s) Pick: **Qty Part Number** Description 2 MS20819-8D Sleeve 7.0 AN8188D Nut Comment: Qty.: 10.0000 Each(s) 2.0000 Each(s)/Unit Total: Pick: M10 3154 **Qty Part Number** Description 2 AN818-8D Nut 8.0 D2182 Heat Shrink Comment: Qty.: 0.3750 f(s)/Unit Total: 1.8750 f(s) Pick: **Qty Part Number** Description Batch 1 D2182-045 Heat shrink 9.0 SMALL FAB 1 Comment: SMALL & MEDIUM FAB RESOURCE 1 MF. 07-01-22 Cut as per template D2003-111 (4.625" long) Cut: 4.75" long as per Dwg D2003 MF 07-01-22 Assemble as per Dwg D2003

Date:

Tuesday, 16/01/2007 1:48:22 PM

User:

Linda Lacelle

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: TUBE ASSEMBLY

Job Number: 30135

Part Number: D2003111

Job Number:



Seq. #:

Machine Or Operation:

Description:

10.0

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

11.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location:

12.0

QC21

Comment: FINAL INSI

Job Completion



Monday, 1/8/2007 10:41:25 AM

User:

Kim Johnston

Process Sheet

Drawing Name

Customer

: CU-DAR001 Dart Helicopters Services

S.O. No. :

Job Number

: 30135

Type

Estimate Number

: 10926

P.O. Number

This Issue

: 1/8/2007

: NC Prsht Rev.

: 11 First Issue : 25257 Previous Run

Written By

Checked & Approved By

Comment

: Est.

В 00.01.12 Re-format EC

: SMALL /MED FAB

: D2003111 **Part Number** : UNDER REVIEW **Drawing Number**

: N/A Project Number

: TUBE ASSEMBLY

: B **Drawing Revision**

Material

: 2/5/2007 **Due Date**

Qty:

07.01.08

5 Um:

Each

Additional Product

Job Number:



Seq. #:

Machine Or Operation:

Description:

DOCUMENT CONTROL



Comment: DOCUMENT CONTROL

Photocopy bluefile & type labels per PPP D2003-111

2.0

1.0

M304TR0500W035

304 RD Tube .500 x .035W



Comment: Qty.:

DC

0.4047 f(s)/Unit Total: 2.0234 f(s)

Material:1/2"Æ x 0.035" wall 6061-T6 tubing

Batch: M Monda

SMALL & MEDIUM FAB RESOURCE 1



3.0

SMALL FAB 1

Comment: SMALL & MEDIUM FAB RESOURCE 1

Form tube as per template D2003111

4.0

QC5



INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

M26506 5.0

Firesleeve-crkl .375IDia



0.4156 f(s)/Unit

Batch:

Comment: Qty.:

Total:

2.0780 f(s)

Material: M2650-6 Heat sleeve

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES										
DATE	STEP	PROCEDURE CHANGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector					
· · · · · · · · · · · · · · · · · · ·												
Part No	:	PAR #: Fault Category:	NCR: Yes	No DQ	A:	Date:						

QA: N/C Closed: ____ Date: ____

	WORK ORDER NON-CONFORMANCE (NCR)											
	Description of NC		Corrective Action Section B	Varification	Approval							
STEP	Section A	Initial Chief Eng	Section C	Chief Eng	Approval QC Inspector							
			ж									
	STEP	STEP Description of NC	STEP Description of NC Section A Initial	STEP Description of NC Corrective Action Section B Section A Initial Action Description	STEP Description of NC Corrective Action Section B Initial Action Description Sign &	STEP Description of NC Section A Initial Action Description Sign & Verification Section C	STEP Description of NC Section A Portion Section B Section C Secti					

NOTE: Date & initial all entries

Monday, 1/8/2007 10:41:25 AM Date: User: Kim Johnston **Process Sheet** Drawing Name: TUBE ASSEMBLY Customer: CU-DAR001 Dart Helicopters Services Part Number: D2003111 Job Number: 30135 Job Number: Seq. #: Description: **Machine Or Operation:** 6.0 MS208198D Sleeve Comment: Qty.: 2.0000 Each(s)/Unit Total: 10.0000 Each(s) Pick: **Qty Part Number** Description Batch 2 MS20819-8D Sleeve 7.0 AN8188D Nut 2.0000 Each(s)/Unit Total: Comment: Qty.: 10.0000 Each(s) Pick: **Qty Part Number** Description Batch 2 AN818-8D Nut D2182 Heat Shrink 8.0 Comment: Qty.: 0.3750 f(s)/Unit Total: 1.8750 f(s) Pick: **Qty Part Number** Description Batch 1 D2182-045 Heat shrink SMALL & MEDIUM FAB RESOURCE 1 9.0 Comment: SMALL & MEDIUM FAB RESOURCE 1 Cut as per template D2003-111 (4.625" long) Cut: 4.75" long as per Dwg D2003 Assemble as per Dwg D2003 10.0 QC5 INSPECT WORK TO CURRENT STEP Comment: INSPECT WORK TO CURRENT STEP 11.0 PACKAGING 1 PACKAGING RESOURCE #1 Comment: PACKAGING RESOURCE #1 Identify and Stock Location:_

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES									
DATE	STEP	PROCEDURE CHANGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector				
Part No	•	PAR #: Fault Category: NC	R: Yes	s No DQ	A:	Date: _					
			QA:	N/C Close	d:	Date: _					

NCR:		WORK ORDER NON-CONFORMANCE (NCR)										
DATE		Description of NC		Corrective Action Section B	Verification	Annessal						
	STEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Section C	Approval Chief Eng	Approval QC Inspector				
				(2)								
<u> </u>												

NOTE: Date & initial all entries

Date: '

Monday, 1/8/2007 10:41:26 AM

er: Kim Johnston

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: TUBE ASSEMBLY

Job Number: 30135

Part Number: D2003111

Job Number:



Seq. #:

Machine Or Operation:

Description:

12.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

Job Completion



Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES											
DATE	STEP		(i)	PROCEDURE CHANGE		Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector			
- 14/1				<u> </u>									
									n				
Part No	:		PAR #:	Fault Category:	N	CR: Yes	No DQ	A :	_ Date: _				
						QA:	N/C Close	d:	Date:				

NCR:		WORK ORDER NON-CONFORMANCE (NCR)										
DATE		Description of NC		Corrective Action Section B	Verification	Ammerical	T					
	STEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Section C	Approval Chief Eng	Approval QC Inspector				
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	-			94								

NOTE: Date & initial all entries





DESIG	4)	DRAWN BY	DART AEROSPACE LTD hawkesbury, ontario, canada
CHEC	KED	APPROVED	DRAWING NO. REV. B
4	15	1 47	D2003 SHEET 1 OF 2
DATEV	,		TITLE SCALE
99.0	06.08		206 CABIN HEATER TUBE ASSEMBLIES NTS
Α		90.04.09	NEW ISSUE
В		99.06.08	UPDATE PER TEMPLATES; ADD P/N'S; 0.025 TUBING NOW 0.035 (TSR1049)

NOTE: FLAT LENGTHS MAY BE UNDER REVIEW
INCORRECT, BEND TO BENT
TOOL. REPORT TO ENGINEERING

CC.08.21 CB

TOOL

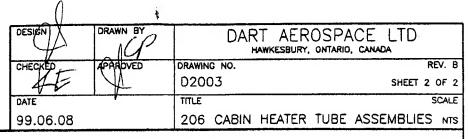
CB Some Flat 06.12.13

on rollk	ect Flat	HEATSLEEVE コート	CUT LENGTH OF TUBE ²	MS20819-8J SLEEVE	AN818-8J NUT	MS20819-8D SLEEVE	AN818-8D NUT	MS20819-6D SLEEVE	AN818-6D NUT			VENDOR OR
P/N	TEMPLATE	==	20	Σ	₹	Σ	₹	Σ	¥	DESC.	MATERIAL41617	SPEC
D2003-001	T2003-001	5.2	6.00					2	2	TUBE ASS'Y	6061-T6 0.375 OD x 0.035 W	WW-T-700/6
D2003-003	T2003-003	7.3	8.12					2	2	TUBE ASS'Y	6061-T6 0.375 OD x 0.035 W	WW-T-700/6
D2003-005	T2003-005	9.8	10.62					2	2	TUBE ASS'Y	6061-T6 0.375 OD x 0.035 W	WW-T-700/6
D2003-007	T2003-007	20.0	19.63					2	2	TUBE ASS'Y	6061-T6 0.375 OD x 0.035 W	WW-T-700/6
D2003-009	T2003-009	12.38	12.44					2	2	TUBE ASS'Y	6061-T6 0.375 OD x 0.035 W	WW-T-700/6
D2003-011	T2003-011	33,31	32.38					2	2	TUBE ASS'Y	6061-T6 0.375 OD x 0.035 W	WW-T-700/6
D2003-013	T2003-013	12.7	13.54					2	2	TUBE ASS'Y	6061-T6 0.375 OD x 0.035 W	WW-T-700/6
D2003-015	T2003-015	17.2	18.00					2	2	TUBE ASS'Y	6061-T6 0.375 OD x 0.035 W	WW-T-700/6
D2003-017	T2003-017	17.0	16.25					2	2	TUBE ASS'Y	6061-T6 0.375 OD x 0.035 W	WW-T-700/6
D2003-019	T2003-019	9.8	10.62			2	2			TUBE ASS'Y	6061-T6 0,500 OD x 0,035 W	WW-T-700/6
D2003-021	T2003-021	N/A	2.25			2	2			TUBE ASS'Y	6061-T6 0,500 OD x 0,035 W	WW-T-700/6
D2003-023	T2003-023	4.5	5.33			2	2			TUBE ASS'Y	6061-T6 0.500 OD x 0.035 W	WW-T-700/6
D2003-025	T2003-025	9.8	10,60			2	2			TUBE ASS'Y	6061-T6 0.500 OD x 0.035 W	WW-T-700/6
D2003-027	T2003-027	7.25	7.38			2	2			TUBE ASS'Y	6061-T6 0.500 OD x 0.035 W	WW-T-700/6
D2003-029	T2003-029	17.2	18.00		-	2	2			TUBE ASS'Y	6061-T6 0.500 OD x 0.035 W	WW-T-700/6
D2003-031	T2003-031	14.6	15.38	2	2					TUBE ASS'Y	CRES 0.500 OD x 0.035 W	AISI 304
D2003-033	T2003-033	29.75	29.62	2	2					TUBE ASS'Y	CRES 0.500 OD x 0.035 W	AISI 304
D2003-035	T2003-035	24.7	27.00	2	2					TUBE ASS'Y	CRES 0.500 OD x 0.035 W	AISI 304
D2003-037	T2003-037	24.81	23.38	2	2					TUBE ASS'Y	CRES 0.500 OD x 0.035 W	AISI 304
D2003-039	T2003-039	34.0	34.00	2	2					TUBE ASS'Y	CRES 0.500 OD x 0.035 W	AISI 304
D2003-041	T2003-041	6.0	5.88	2	2					TUBE ASS'Y	CRES 0.500 OD x 0.035 W	AISI 304
D2003-043	T2003-043	11.7	10.75	2	2					TUBE ASS'Y	CRES 0.500 OD x 0.035 W	AISI 304
D2003-045	T2003-045	3.50	2.44	2	2					TUBE ASS'Y	CRES 0.500 OD x 0.035 W	AISI 304
D2003-047	T2003-047	5.56	5.56	2	2					TUBE ASS'Y	CRES 0.500 OD x 0.035 W	AISI 304
D2003-049	T2003-049	33.2	34.00	2	2		$\neg \neg$		\neg	TUBE ASS'Y	CRES 0.500 OD x 0.035 W	AISI 304
D2003-077	T2003-077	N/A	6.25					1	1	JET	6061-T6 0.375 OD x 0.035 W	WW-T-700/6
D2003-101	T2003-101	13.25	13.13					2	2	TUBE ASS'Y	6061-T6 0.375 QD x 0.035 W	WW-T-600/6
D2003-103	T2003-103	12.38	12.00					2	2	TUBE ASS'Y	6061-T6 0.375 OD x 0.035 W	WW-T-600/6
D2003-105	T2003-105	10.75	10.60					2	2	TUBE ASS'Y	6061-T6 0.375 OD x 0.035 W	WW-T-600/6
D2003-107	T2003-107	12.75	12.25					2	2	TUBE ASS'Y	6061-T6 0.375 OD x 0.035 W	-WW-T-600/6
D2003-109	T2003-109	8.25	8.125			2	2			TUBE ASS'Y	6061-T6 0.500 OD x 0.035 W	WW-T-600/6
D2003-111	T2003-111	4.75	4.625			2	2			TUBE ASS'Y	6061-T6 0.500 OD x 0.035 W	WW-T-600/6
D2003-116	T2003-116	4.0								HEATSLEEVE	M2650-20 CRINKLE-SOFT	STRATOFLEX
D2003-120	T2003-120	4.0					3			HEATSLEEVE	M2650-16 CRINKLE-SOFT	STRATOFLEX
D2003-14	T2003-14	4.0								HEATSLEEVE	M2650-14 CRINKLE-SOFT	STRATOFLEX
D2003-16	T2003-16	4.0		-						HEATSLEEVE	M2650-16 CRINKLE-SOFT	STRATOFLEX
D2003-205	T2003-205	9.75	9.60					2	2	TUBE ASS'Y	6061-T6 0.375 OD x 0.035 W	WW-T-700/6
D2003-207	T2003-207	3.75	3.75					2	2	TUBE ASS'Y	6061-T6 0.375 OD x 0.035 W	WW-T-700/6
												OF COLA

ENGINEERING UNCONTROLLED COPY









Ob. 08 21 (B) Some flat lengths wrong

Notes:

- (1) USE STRATOFLEX M2650-6 CRINKLE-SOFT HEATSLEEVE.
- (2) TUBING ASSEMBLIES TO BE CUT AND BENT IN ACCORDANCE WITH TEMPLATES.
- (3) TUBES TO BE FLARED 30° TO MATE WITH FITTINGS MADE TO MS33514.
- (4) ENSURE SEAMLESS TUBING IS USED.
- (5) INSTALL HEATSLEEVE OVER ALL TUBES WITH A DESIGNATED LENGTH OF HEATSLEEVE PER THE PARTS LIST.
- (6) 5052 (WW-T-700/4) TUBING MAY BE SUBSTITUTED WHEN 6061 TUBING IS NOT AVAILABLE.
- (7) 0.049 WALL THICKNESS CRES TUBING MAY BE SUBSTITUTED WHEN 0.035 IS NOT AVAILABLE.
- (8) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.

